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Asp Pro Gly Ala Phe Pro Val Ala Thr Asn Gly Glu Arg Phe Pro Trp
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Gln Glu Leu Arg Leu Pro Ser Val Val Ile Pro Leu His Tyr Asp Leu 65 70 75 80

Phe Val His Pro Asn Leu Thr Ser Leu Asp Phe Val Ala Ser Glu Lys 85 90 95

Ile Glu Val Leu Val Ser Asn Ala Thr Gln Phe Ile Ile Leu His Ser 100 105 110

Lys Asp Leu Glu Ile Thr Asn Ala Thr Leu Gln Ser Glu Glu Asp Ser 115 120 125

Arg Tyr Met Lys Pro Gly Lys Glu Leu Lys Val Leu Ser Tyr Pro Ala 130 135 140

His Glu Gln Ile Ala Leu Leu Val Pro Glu Lys Leu Thr Pro His Leu 145 150 155 160

Lys Tyr Tyr Val Ala Met Asp Phe Gln Ala Lys Leu Gly Asp Gly Phe 165 170 175

Glu Gly Phe Tyr Lys Ser Thr Tyr Arg Thr Leu Gly Gly Glu Thr Arg
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Ile Leu Ala Val Thr Asp Phe Glu Pro Thr Gln Ala Arg Met Ala Phe 195 200 205

Pro Cys Phe Asp Glu Pro Leu Phe Lys Ala Asn Phe Ser Ile Lys Ile
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Arg Arg Glu Ser Arg His Ile Ala Leu Ser Asn Met Pro Lys Val Lys 225 230 235 240

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Val Lys Met Ser Thr Tyr Leu Val Ala Tyr Ile Val Cys Asp Phe His

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| Lys 305 | Leu | Leu | Asp | Phe | Tyr 310 | Glu | Lys | Tyr | Phe | Asp 315 | Ile | Tyr | Tyr | Pro | Leu 320 |
| Ser | Lys | Leu | Asp | Leu 325 | Ile | Ala | Ile | Pro | Asp 330 | Phe | Ala | Pro | Gly | Ala 335 | Met |
| | Asn | | 340 | | | | _ | 345 | | | | | 350 | | |
| | Lys | 355 | | | | | 360 | - | | _ | | 365 | - | | |
| | His 370 | | | | | 375 | _ | | _ | | 380 | | | | |
| 385 | Trp | | _ | | 390 | | | | _ | 395 | | _ | _ | | 400 |
| | Ile | | | 405 | | | - | | 410 | | | | _ | 415 | - |
| | Leu | | 420 | _ | | | | 425 | | _ | _ | | 430 | | |
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| 465 | Lys | | | | 470 | | | | | 475 | _ | | | | 480 |
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| | Cys | 515 | | | | - | 520 | | | | | 525 | | | |
| | Glu 530 | | | | | 535 | | | | | 540 | | | | |
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| | Gln | | | 565 | | | | | 570 | | | | - | 575 | |
| | Arg | | 580 | | | | | 585 | | | | | 590 | | |
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Gln Ser Trp Ser Asp Lys Gly Ser Val Trp Asp Arg Met Leu Arg Ser
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Ala Leu Leu Lys Leu Ala Cys Asp Leu Asn His Ala Pro Cys Ile Gln
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Lys Ala Ala Glu Leu Phe Ser Gln Trp Met Glu Ser Ser Gly Lys Leu
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Asn Ile Pro Thr Asp Val Leu Lys Ile Val Tyr Ser Val Gly Ala Gln
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Thr Thr Ala Gly Trp Asn Tyr Leu Leu Glu Gln Tyr Glu Leu Ser Met
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His Gln Glu Lys Leu Lys Leu Ile Glu Leu Gly Met Glu Gly Lys
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Val Ile Lys Thr Gln Asn Leu Ala Ala Leu Leu His Ala Ile Ala Arg
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Ile Ile Ser Gly Thr Thr Ala His Phe Ser Ser Lys Asp Lys Leu Gln
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Ser His Arg Lys Pro Met Phe Asn Ile His Arg Gly Phe Tyr Cys Leu
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Thr Ala Ile Leu Pro Gln Ile Cys Ile Cys Ser Gln Phe Ser Val Pro
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| | | | | | | | | | | ccc Pro | | | | | | 412 |
| gac Asp 90 | ttt Phe | gtt Val | gca Ala | tct Ser | gag Glu 95 | aag Lys | atc Ile | gaa Glu | gtc Val | ttg Leu 100 | gtc Val | agc Ser | aat Asn | gct Ala | acc Thr 105 | 460 |
| | | | | | | | | | | gaa Glu | | | | | | 508 |
| | | | | | | | | | | aaa Lys | | | | | | 556 |
| aaa Lys | gtt Val | ttg Leu 140 | agt Ser | tac Tyr | cct Pro | gct Ala | cat His 145 | gaa Glu | caa Gln | att Ile | gca Ala | ctg Leu 150 | ctg Leu | gtt Val | cca Pro | 604 |
| gag Glu | aaa Lys 155 | ctt Leu | acg Thr | cct Pro | cac His | ctg Leu 160 | aaa Lys | tac Tyr | tat Tyr | gtg Val | gct Ala 165 | atg Met | gac Asp | ttc Phe | caa Gln | 652 |
| gcc Ala 170 | aag Lys | tta Leu | ggt Gly | gat Asp | ggc Gly 175 | ttt Phe | gaa Glu | Gly aaa | ttt Phe | tat Tyr 180 | aaa Lys | agc Ser | aca Thr | tac Tyr | aga Arg 185 | 700 |
| act Thr | ctt Leu | ggt Gly | ggt Gly | gaa Glu 190 | aca Thr | aga Arg | att Ile | ctt Leu | gca Ala 195 | gta Val | aca Thr | gat Asp | ttt Phe | gag Glu 200 | cca Pro | 748 |
| acc Thr | cag Gln | gca Ala | cgc Arg 205 | atg Met | gct Ala | ttc Phe | cct Pro | tgc Cys 210 | ttt Phe | gat Asp | gaa Glu | ccg Pro | ttg Leu 215 | ttc Phe | aaa Lys | 796 |
| gcc Ala | aac Asn | ttt Phe 220 | tca Ser | atc Ile | aag Lys | ata Ile | cga Arg 225 | aga Arg | gag Glu | agc Ser | agg Arg | cat His 230 | att Ile | gca Ala | cta Leu | 844 |
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| gaa Glu 250 | gat Asp | cac His | ttt Phe | gaa Glu | act Thr 255 | act Thr | gta Val | aaa Lys | atg Met | agt Ser 260 | aca Thr | tac Tyr | ctt Leu | gta Val | gcc Ala 265 | 940 |
| tac Tyr | ata Ile | gtt Val | tgt Cys | gat Asp | ttc Phe | cac His | tct Ser | ctg Leu | agt Ser | ggc Gly | ttc Phe | act Thr | tca Ser | tca Ser | gly aaa | 988 |

270 275 280

| gtc Val | aag Lys | gtg Val | tcc Ser 285 | atc Ile | tat Tyr | gca Ala | tcc Ser | cca Pro 290 | gac Asp | aaa Lys | cgg Arg | aat Asn | caa Gln 295 | aca Thr | cat His | 1036 |
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| ttt Phe | gat Asp 315 | atc Ile | tac Tyr | tat Tyr | cca Pro | ctc Leu 320 | tcc Ser | aaa Lys | ctg Leu | gat Asp | tta Leu 325 | att Ile | gct Ala | att Ile | cct Pro | 1132 |
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| gag Glu | acg Thr | tca Ser | ctg Leu | ctt Leu 350 | ttt Phe | gac Asp | ccc Pro | aag Lys | acc Thr 355 | tct Ser | tct Ser | gct Ala | tcc Ser | gat Asp 360 | aaa Lys | 1228 |
| ctg Leu | tgg Trp | gtc Val | acc Thr 365 | aga Arg | gtc Val | ata Ile | gcc Ala | cat His 370 | gaa Glu | ctg Leu | gcg Ala | cac His | cag Gln 375 | tgg Trp | ttt Phe | 1276 |
| ggc | aac Asn | ctg Leu 380 | gtc Val | aca Thr | atg Met | gaa Glu | tgg Trp 385 | tgg Trp | aat Asn | gat Asp | att Ile | tgg Trp 390 | ctt Leu | aag Lys | gag Glu | 1324 |
| ggt Gly | ttt Phe 395 | gca Ala | aaa Lys | tac Tyr | atg Met | gaa Glu 400 | ctt Leu | atc Ile | gct Ala | gtt Val | aat Asn 405 | gct Ala | aca Thr | tat Tyr | cca Pro | 1372 |
| gag Glu 410 | ctg Leu | caa Gln | ttt Phe | gat Asp | gac Asp 415 | tat Tyr | ttt Phe | ttg Leu | aat Asn | gtg Val 420 | tgt Cys | ttt Phe | gaa Glu | gta Val | att Ile 425 | 1420 |
| aca Thr | aaa Lys | gat Asp | tca Ser | ttg Leu 430 | aat Asn | tca Ser | tcc Ser | cgc Arg | cct Pro 435 | atc Ile | tcc Ser | aaa Lys | cca Pro | gcg Ala 440 | gaa Glu | 1468 |
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| ttc Phe | cag Gln 475 | aaa Lys | gga Gly | ata Ile | att Ile | cag Gln 480 | tac Tyr | tta Leu | aag Lys | aag Lys | ttc Phe 485 | agc Ser | tat Tyr | aga Arg | aat Asn | 1612 |
| gct Ala 490 | aag Lys | aat Asn | gat Asp | gac Asp | ttg Leu 495 | tgg Trp | agc Ser | agt Ser | ctg Leu | tca Ser 500 | aat Asn | agt Ser | tgt Cys | tta Leu | gaa Glu 505 | 1660 |

| agt Ser | gat Asp | ttt Phe | aca Thr | tct Ser 510 | ggt Gly | gga Gly | gtt Val | tgt Cys | cat His 515 | tcg Ser | gat Asp | ccc Pro | aag Lys | atg Met 520 | aca Thr | 1708 |
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| caa Gln | gac Asp 555 | Gly aaa | tgt Cys | tca Ser | ctc Leu | cga Arg 560 | ctg Leu | caa Gln | cag Gln | gag Glu | cgc Arg 565 | ttc Phe | ctc Leu | cag Gln | gjà aaa | 1852 |
| gtt Val 570 | ttc Phe | cag Gln | gaa Glu | gac Asp | cct Pro 575 | gaa Glu | tgg Trp | agg Arg | gcc Ala | ctg Leu 580 | cag Gln | gag Glu | agg Arg | tac Tyr | ctg Leu 585 | 1900 |
| tgg Trp | cat His | atc Ile | cca Pro | ttg Leu 590 | acc Thr | tac Tyr | tcc Ser | acg Thr | agt Ser 595 | tct Ser | tct Ser | aat Asn | gtg Val | atc Ile 600 | cac His | 1948 |
| aga Arg | cac His | att Ile | cta Leu 605 | aaa Lys | tca Ser | aag Lys | aca Thr | gat Asp 610 | act Thr | ctg Leu | gat Asp | cta Leu | cct Pro 615 | gaa Glu | aag Lys | 1996 |
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| gac Asp | atg Met | act Thr | tac Tyr 685 | tac Tyr | ctc Leu | caa Gln | cat His | gaa Glu 690 | aca Thr | agc Ser | agc Ser | ccc Pro | gca Ala 695 | ctt Leu | ctc Leu | 2236 |
| gaa Glu | ggt Gly | ctg Leu 700 | agt Ser | tac Tyr | ttg Leu | Glu | tcg Ser 705 | ttt Phe | tac Tyr | cac His | atg Met | atg Met 710 | gac Asp | aga Arg | agg Arg | 2284 |
| aat Asn | att Ile 715 | tca Ser | gat Asp | atc Ile | tct Ser | gaa Glu 720 | aac Asn | ctc Leu | aag Lys | cgt Arg | tac Tyr 725 | ctt Leu | ctt Leu | cag Gln | tat Tyr | 2332 |

| ttt Phe 730 | aag Lys | cca Pro | gtg Val | att Ile | gac Asp 735 | agg Arg | caa Gln | agc Ser | tgg Trp | agt Ser 740 | gac Asp | aag Lys | ggc | tca Ser | gtc Val 745 | 2380 |
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| atg Met | gaa Glu | tcc Ser 780 | agt Ser | gga Gly | aaa Lys | tta Leu | aat Asn 785 | ata Ile | cca Pro | aca Thr | gat Asp | gtt Val 790 | tta Leu | aag Lys | att Ile | 2524 |
| gtg Val | tat Tyr 795 | tct Ser | gtg Val | ggt Gly | gct Ala | cag Gln 800 | aca Thr | aca Thr | gca Ala | gga Gly | tgg Trp 805 | aat Asn | tac Tyr | ctt Leu | tta Leu | 2572 |
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| tat Tyr | gct Ala | ttg Leu | tca Ser | acg Thr 830 | agc Ser | aag Lys | cat His | cag Gln | gaa Glu 835 | aag Lys | tta Leu | ctg Leu | aag Lys | tta Leu 840 | att Ile | 2668 |
| gaa Glu | cta Leu | gga Gly | atg Met 845 | gaa Glu | gga Gly | aag Lys | gtt Val | atc Ile 850 | aag Lys | aca Thr | cag Gln | aac Asn | ttg Leu 855 | gca Ala | gct Ala | 2716 |
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| gat Asp | ttt Phe 875 | Val | aga Arg | gaa Glu | aat Asn | tgg Trp 880 | Thr | cat His | ctt Leu | ctg Leu | aaa Lys 885 | Lys | ttt Phe | gac Asp | ttg Leu | 2812 |
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Thr Trp Leu Met Val Asn Thr

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